

retirugata) occur only in the Lower Purbeck ; and of the others, six occur in both the Middle and Upper. Of the fourteen, five (*Cypridea valdensis*, very rare in the Purbeck, *C. tuberculata*, *C. Dunkeri*, *Cyprione Bristovii*, and *Darwinula leguminella*) go up into the Wealden from the Middle and Upper divisions only. *Cypridea punctata* for the Upper, *C. granulosa* (*fasciculata*) for the Middle, and *Cypris purbeckensis* for the Lower Purbeck, seem to be always characteristic.

MISCELLANEOUS.

On a new State of Reticularian Rhizopods.

By M. DE FOLIN.

AMONG the forms of Reticularian Rhizopoda belonging to the tribe Nuda, that is to say those which live without envelopes, we have distinguished some remarkable examples formed by a sort of membranous sheath, developing in tubes filled with sarcode. These tubes present numerous branches, the interlacings of which cross one another upon several planes, giving to the whole the aspect of an irregular network. These form the genus *Pseudarkys*. We find them sheltered in all the cavities presented by old perforated shells ; and from the mode in which they fill these and the multiplicity of branches of which they are composed, it might be supposed that they had themselves hollowed out their shelters. Some observations have shown us that this is not the case. One most significant circumstance has just dissipated all doubts upon this point, namely, the occurrence of a specimen of *Pseudarkys* inhabiting the cells of a *Dentalina* and adopting their form. It was very easily distinguished through the semitransparent test, and in this position it presented a clear proof that the organism certainly belonged to the tribe Nuda. At its birth it had introduced itself into the asylum, and in growing it had moulded its system of ramification upon the inner walls.

The same animal, varying in dimensions according to the retreats in which it had taken up its abode, was met with in a considerable number of the dredgings of the 'Travailleur ;' but the species seems to remain the same. One of those of the 'Talisman,' on the other hand, furnished us with an example of an alteration in the mode of sheltering itself adopted by this organism. The branching, instead of penetrating into a ready-made retreat, surrounded itself with corpuscles, and especially with *Globigerinæ*, which were very abundant on the bottom on which it lived. In some cases, the envelope not being completed, it was easy to see how its constituents were united and cemented by the sarcodesma. In this new condition a mass of sarcode was nearly always accumulated, forming, in all probability, a sort of reserve destined to become converted into

tubes, grafted upon those already in existence. This new mode of living sheltered, differing essentially from the former, gave origin to a new genus, *Amphievis*, of the family Pseudarkysiaë.

In a recent dredging at some distance from the southern shore of the Bay of Biscay, upon a bottom of coarse sand, we found some specimens of *Amphievis*, that is to say organisms like those captured by the 'Talisman,' but differing from them in their envelope. The envelope, instead of consisting of *Globigerinæ*, is formed by an assemblage of sand-grains, of small shells of mollusca or their débris, and a little mud. They also differ in having the sarcode which envelopes the branched system much more condensed than in the specimens from our shores.

The most interesting discovery that we have made is that of a third state of the Pseudarkysiaë. It is in the form of little pebbles, and with the same hardness, that this organism presents itself. The resemblance is so perfect that one is easily deceived. The organism impregnates itself with a paste which it forms with foreign corpuscles and sarcodesma, and thus forms a sort of cake, which it "ices," so to speak, by covering it with a composition of secretion and sarcode, exactly analogous to that which forms the tests of the porcellaneous Foraminifera. The covering is just as smooth, polished, brilliant, and hard as the latter; but, instead of being white, it is coloured in several shades. The sarcode which envelopes the branched system is strongly condensed. If we break one of these little false-pebbles the fracture is of the kind known as *greasy*. This new state therefore gives occasion to the establishment of the genus *Lithozoa*, and we believe that it may be divided into several species.—*Comptes Rendus*, July 27, 1885, p. 327.

Description of a new Crustacean allied to Homarus and Nephrops.

By SIDNEY I. SMITH.

Any additions to the small number of known types of existing Homaridæ are of special interest on account of the relations of the group to the Astacidæ and to several fossil forms; and for this reason it seems desirable to give a special notice of the following species recently taken in the Caribbean Sea by the Fish-Commission steamer 'Albatross.'

EUNEPHROPS, gen. nov.

The species for which this generic name is proposed agrees with *Homarus* and differs from *Nephrops* and *Nephropsis* in the number and arrangement of the branchiæ, and in the evenly swollen branchial regions; it agrees with *Nephrops* and *Homarus* and differs from *Nephropsis* in possessing antennal scales and well-developed eyes; it agrees with *Nephropsis* and differs from *Homarus* and *Nephrops* in having very large antennal spines, and in being without any spine on the second segment of the peduncle of the antennæ; and